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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,453	04/12/2001	Evelyn Jennifer Lin Paulsen	174PUS06106	3297

23543 7590 10/07/2002

AIR PRODUCTS AND CHEMICALS, INC.
PATENT DEPARTMENT
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EXAMINER

GALLAGHER, JOHN J

ART UNIT	PAPER NUMBER
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1733

4

DATE MAILED: 10/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833-453

Applicant(s)

Examiner

Group Art Unit

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-12 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-12 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 2-3
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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1. With respect to the IDS filed (a) 12 August 2002 (1) the Form PTO-1449 must be (completely) filled out (as submitted this form is essentially BLANK); (2) the European Search Report cited therein is NOT a reference; and (3) the Chung et al. reference cited therein (viz. 5,143,996) has ALREADY BEEN CITED in the IDS filed 12 April 2001; and (b) 12 April 2001, no cover page or sheet was apparently submitted therewith (clarification and/or correction requested).

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be renumbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 11-16 have been renumbered 7-12. The dependency numerals in claims 8-12 have also been changed accordingly.

3. The disclosure is objected to because of the following informalities: Page 7 line 13 - delete the second comma (i.e. as being unnecessary).

Appropriate correction is required.

4. Claims 7-12 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point

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out and distinctly claim the subject matter which applicants regard as the invention. Specifically, change "to" in line 4 of claim 7 to "with".

5. The non-statutory double patenting rejection, whether of the obvious-type or non-obvious-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornam*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ 2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 (b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78 (d).

Effective January 1, 1994, a registered attorney or agent of record may sign a Terminal Disclaimer. A Terminal Disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-12 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,280,561 (to McInnis et al.) in view of Taylor et al. At the time the claimed invention was made, it would have been obvious to one of ordinary skill in this art to incorporate a curing (i.e. cross-linking) agent of the type documented in Taylor et al. (N.B. column 1 line 66 thru column 2 line 3 and claim 3) in the adhesive composition of McInnis et al., wherever deemed desirable and/or necessary, in view of the (a) close similarity between the respective

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compositions of these two patentees; and (b) the conventionality of such an incorporation or practice; further along this line, N.B. column 5 lines 56-60 of McInnis et al. wherein provision is made for the inclusion of an (unspecified) catalyst. This rejection is made on the basis of "different inventive entity, commonly assigned".

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

8. Claims 1-12 are further rejected under 35 U.S.C. § 102(e) as being (clearly) anticipated by McInnis et al. These patentees provide for the use of at least 90 w/o of a "perfect" prepolymer as an adhesive (Abstract, N.B. column 3 lines 21-35 and also lines 49-53, column 5 lines 56-60, column 6 lines 16-28), in conjunction with a curing agent (viz. atmospheric moisture) therefor. All of the essential limitations of these claims are seen to be satisfied by this reference.

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9. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-12 are still further rejected under 35 U.S.C. § 103(a) as being unpatentable over McInnis et al. in view of Taylor et al. See the reasoning at the end of paragraph 6, above.

11. Claims 1-12 are yet still further rejected under 35 U.S.C. § 103(a) as being unpatentable over Taylor et al. in view of either Heiss or Marans et al.

Taylor et al. disclose a (moisture curable) adhesive composition composed of a polyurethane prepolymer derived from and constituting the reaction product of a polyester polyol and a polyisocyanate in combination with a cross-linking (i.e. curing) agent there\for, which polyurethane is (a) reacted at an NCO/OH ratio of from 1.2-12 and preferably 1.5-5.0; and (b) contains e.g. 1.7-2% residual free -NCO groups. (Abstract, column 1 lines 4-5 and 43-53, N.B. column 1 line 66 thru column 3, column 5 lines 14-65 (and N.B. lines 64-65), column 6 lines 14-16, 31-32

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and 49-50, column 7 lines 30-31, 40-41 and 62-67, column 8 lines 1-8).

Heiss (Abstract, column 1 lines 20-70, column 2 lines 42-45, column 5 lines 33-47) and Marans et al. (Abstract, column 1 lines 17-32, column 3 line 39 thru column 4 line 1) both disclose that it is both known and desirable (for health and safety reasons) to minimize the amount of unreacted/residual isocyanate monomer reactant utilized in the formation of urethane prepolymers (e.g. of the type disclosed in Taylor et al.), such that it would have been obvious to one of ordinary skill in this art to employ this beneficial/desirable minimization technique in/in conjunction with the process and prepolymers of these (primary) patentees. The following are additionally advanced regarding this rejection: (a) The teaching of the two respective secondary references is seen to be consistent and in agreement with applicants' specification at page 7 lines 11-13; and (b) Taylor et al. are seen to fairly provide for (i.e. encompass within the metes and bounds of their teaching) an NCO/OH ratio of ≥ 4 (i.e. the (a) midpoint of their (1) broad range is 6.6; and (2) narrower range is 3.25; and (b) average of (and midpoint between) these two foregoing midpoints is approximately 4.9 or so), ~~the~~ ^t value disclosed by applicants (N.B. page 7 lines 7-11) as being necessary for the formation of "perfect" prepolymers (i.e. the reaction is "loaded" in favor of -NCO reactant

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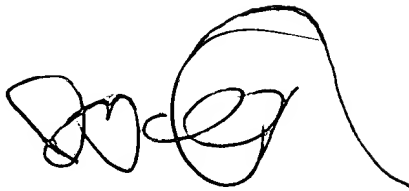
functionality), such that the selection of this value of NCO/OH ratio would have been obvious to one of ordinary skill in this art, especially in view of the fact that it is frequently true, in life in general as well as in the field of invention, that optimum results are achieved by pursuing the path of moderation and avoiding the extremes of suggested ranges (i.e. but rather taking the "middle of the road" approach), as espoused in In re Huitt et al. 153 USPQ 284.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. J. Gallagher whose telephone number is (703) 308-1971. The examiner can normally be reached on M-F from approximately 8:30 A.M. to 5 P.M. The examiner can also be reached on alternate N/A.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball, can be reached on (703) 308-2058. The fax phone number for this Group is (703) ⁸⁷²⁻⁹³¹⁰~~305-3599~~.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661/0662.


JJGallagher:cdc
September 20, 2002


JOHN J. GALLAGHER
PRIMARY EXAMINER
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